



## Original communication

## Are Australian paramedics adequately trained and prepared for intimate partner violence? A pilot study

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## ABSTRACT

Intimate partner violence (IPV) is a common occurrence in Australian society and has far reaching health, social and economic impacts, particularly for females who are the most common victims. It is theorised that paramedics frequently encounter IPV in the field and in some cases are the only agency which deal with IPV victims in the out-of-hospital setting. Thus paramedics have a unique opportunity to increase discovery, treatment and reporting, however there is little formal training in managing IPV for most Australian paramedics. We evaluated the level of basic knowledge as well as self-reported preparedness and frequency of encountering IPV in a selection of 50 Australian paramedics using a cross-sectional descriptive study design with a paper-based questionnaire. Ninety percent of the paramedics reported encountering at least 1 case of suspected IPV in the last year, with the average number of cases being 3.66. Only 22% reported that they felt confident managing IPV cases. Sixty six percent of participants were unaware there is no mandatory reporting of IPV in their region. The vast majority of participants stated that they felt additional education and training would be most helpful to improving their ability to manage IPV cases. Participants had a poor knowledge and poor preparedness for IPV prior to undertaking a targeted education session. There is an urgent need for additional research of the needs and best methods to educate and train paramedics to appropriately respond to IPV cases.

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## 1. Introduction

Intimate partner violence (IPV) is an issue with profound health, social and economic implications to society. The term IPV refers to abuse transpiring between people who are, or were formerly, in an intimate relationship and occurs on a continuum of economic, psychological, and emotional abuse, through to controlling behaviours, and physical or sexual violence.<sup>1,2</sup> Within Australia as well as worldwide IPV occurs across cultural, age, and socio-economical groups.<sup>1</sup> The vast majority of victims are women and they are far more likely to be seriously injured than men.<sup>1</sup> The prevalence of IPV within Australia has been measured in several studies over the past two decades, estimates are that between 17 and 57% of Australian

women will report being subjected to IPV at least once in their adult life.<sup>4–6</sup> Additionally figures show that around 2% of women who present to hospital emergency departments are victims of IPV.<sup>7</sup> These figures are likely to be significantly lower than the true incidence due to various barriers.<sup>8</sup> Therefore it is safe to conclude that female victims of IPV constitute a significant portion of the Australian healthcare workload.

The impacts of IPV are broad and affect more than just the victim, ranging from other family members to entire communities.<sup>9</sup> Intimate partner violence causes more preventable ill-health and premature death in Victorian women aged 15–44 than any other risk factor, including smoking high blood pressure and obesity.<sup>1</sup> Additionally IPV accounts for 8% of the burden of disease in Australia which is more than double any other risk factor.<sup>1</sup> Women who have been exposed to IPV are at greater risk for a range of other physical and mental health issues.<sup>10</sup> The estimated cost of IPV in Australia is over AUD \$8 billion annually, with around \$500 million attributed solely to lost productivity.<sup>11</sup> Thus IPV causes a vast impact on Australia's physical, economic and social health.

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The impact of IPV on ambulance services is poorly documented and understood. No Australian studies have examined the frequency IPV appears in ambulance caseloads, the impact IPV has on service delivery, or examined the impact that pre-hospital management has on victims and perpetrators. International research may be indicative of the Australian climate. A 2003 US study found that over 95,000 calls were made to ambulance services due to domestic violence,<sup>12</sup> and a Canadian study found that 90% of paramedics reported attending a domestic violence case within the past 12 months.<sup>13</sup> International research has also found that victims of IPV are more likely to arrive at hospital via ambulance than non-IPV patients.<sup>14</sup> Furthermore there is a growing body of international literature which indicates that paramedics are often the first and sometimes the only out-of-hospital agency, medical or otherwise, with which IPV victims have contact.<sup>15–17</sup> Research indicates that the initial contact with IPV victims is crucial as it often affects how they interact with other health care providers and agencies and therefore can either promote or discourage further action.<sup>16</sup> Therefore paramedics are in a unique and perhaps critical position when it comes to the screening, reporting, and management of IPV to ensure the best outcomes for victims.

International studies have also shown that paramedics generally have a low knowledge of the definition, protocols, and legal requirements of IPV, and that education can increase knowledge.<sup>16,18</sup> A survey of health care providers revealed that they believe education is the most important step to improving their response to IPV,<sup>16</sup> and the Australian Medical Association (AMA) believe that paramedics and allied health professionals should receive IPV education.<sup>19</sup> The apparent lack of education and poor out-of-hospital screening raises concerns that IPV may go largely undiscovered or unreported, trivialising the prevalence of IPV and obstructing greater expenditure to prevent future occurrences and protect victims. A study of domestic violence patients seen by paramedics in the US found that almost 1 in 4 women who called due to domestic violence refused transport,<sup>20</sup> thus paramedics did not report the occurrence to a hospital equipped to deal with IPV victims. Furthermore currently the screening of women by hospitals for IPV is only recommended where specific clinical criteria are present.<sup>21</sup> Paramedics often assess patients in home environments and as such are in a unique position of being able to witness and handover clinical symptoms and other evidences to hospitals to ensure maximum discovery.

The present study was conducted with qualified paramedics working in Australia. For the past decade paramedics in Australia have undergone a three year bachelor degree from university whereas formerly paramedics were routinely trained by their employer, as a result the current employee base is a blend of university qualified and diploma holding paramedics. The vast majority of staff receive yearly continuous education, although to our knowledge there is generally no or limited IPV training. International studies have shown that well designed training will empower paramedics to more effectively and confidently address IPV.<sup>16</sup> To our knowledge, no such studies have been undertaken in an Australian paramedic context. Therefore the aim of this study is to evaluate the level of basic knowledge and self-reported preparedness for IPV cases in a selection of Australian paramedics.

## 2. Methods

### 2.1. Design

A cross-sectional descriptive study design involving a paper-based questionnaire.

### 2.2. Participants

Professional Australian paramedics who participated in a 2-h IPV and sexual assault workshop provided data for this study over the period September–November 2011. Inclusion criteria was being an attendee of the workshop.

### 2.3. Instrumentation

This study utilised a 16 question questionnaire developed by Mason et al., which examined three sections: demographics, current practice, and knowledge about IPV.<sup>13</sup> The survey used a combination of binary yes/no responses, 4-point Likert-scale (1 = All of the time and 4 = Not sure), and open-ended questions.

### 2.4. Procedures

At the beginning of the workshop attendees were invited to participate in this study. Attendees were provided with an explanatory statement and were informed that participation was voluntary and anonymous. The survey took attendees approximately 10 min to complete. No follow-up questionnaires were undertaken.

## 3. Results

Fifty paramedics took part in this study, a response rate of 100%. The mean age of the participants was 41.62 years, and the majority were male (64%). All participants were permanently employed either full or part time. All the participants worked in an area that serviced at least 100,000 people. All the participants had worked for at least 5 years, and the mean years of service was 15.27 years (see Table 1).

Of the participants 90% ( $n = 45$ ) had responded to at least 1 call involving IPV in the last year, with the average number of calls being 3.66. One participant reported attending 20 cases of IPV and three reported attending 10 in the last year. Seventy two percent of the participants had attended IPV calls in the last year which were not dispatched as IPV. Less than one in four participants felt very prepared to attend an IPV case. When asked how often they thought IPV victims were transported to hospital 50% reported that they were never transported. Of the participant's most recent IPV case attended the majority of cases were reported to police (see Table 2).

**Table 1**  
Participant demographic distribution.

Variable	Descriptor	N	Percentage (%)
Gender	Male	32	64.0
	Female	18	36.0
Age	20–29 years	2	4.0
	30–39 years	14	28.0
	40–49 years	26	52.0
	50–59 years	8	16.0
Years as a paramedic	0–9 years	11	22.0
	10–19 years	27	54.0
	20–29 years	8	16.0
	30–39 years	4	8.0
Previous education in IPV	Continuing education	22	44.0
	None	13	26.0
	Other	12	24.0
	Formal academic	3	6.0

When asked if they thought the law required mandatory reporting of IPV calls more than half were unsure or answered incorrectly. When asked what percentage women they think experience IPV around 70% of participants were able to correctly identify 11–30% (see Table 3).

Additionally, thirty two participants responded when asked to state in free text if they believed there were any groups more at risk of becoming victims of IPV (participants were allowed multiple answers). Sixty six percent ( $n = 21$ ) replied that they believed 'low socio-economic' groups were most at risk, 22% ( $n = 7$ ) replied 'women', 13% ( $n = 4$ ) replied 'culturally diverse communities', and 13% ( $n = 4$ ) replied 'no population groups are more at risk'. Other responses included Aboriginal and Torres Strait Islander populations, alcohol and drug abusers, intellectual and mentally disabled patients, patients with mental health problems, and the elderly.

Twenty four participants responded when asked to state in free text what they would find helpful in dealing with IPV (participants were allowed multiple answers). Fifty percent ( $n = 12$ ) responded that they would like additional training in dealing with IPV and 38% ( $n = 9$ ) responded that they would like a greater police presence on IPV cases.

#### 4. Discussion

Our study has demonstrated that while our selection of paramedics frequently attend IPV cases they demonstrate a poor understanding of IPV and few feel adequately prepared. Furthermore a large cohort of our participants stated that they would find additional training and resources helpful to increase their ability to respond appropriately to IPV cases.

The vast majority of our participants (90%) had attended an IPV case in the last year, with 40% attending three or more, similar findings were found internationally.<sup>13</sup> Such findings are not surprising as Australian studies have estimated over 207,000 cases of

**Table 3**

Knowledge of IPV facts.

Variable	Descriptor	N	Percentage (%)
Does the law require mandatory reporting of IPV?	Yes	13	26.0
	No	22	44.0
	Only if children are present	12	24.0
	Unsure	3	6.0
What percentage of women do you think experience IPV?	0–10%	9	18
	11–30%	36	72
	51–70%	2	4

IPV annually,<sup>11</sup> and there is evidence that IPV victims commonly utilise ambulance services.<sup>14,22</sup> Only twelve percent of our participants replied that they believed IPV victims were transported to hospital all of the time, with the most frequent reason for non-transport being patient refusal (64%). This reasoning seems consistent with findings that victims of IPV are more likely to refuse transport and that patient refusal is a common reason for the non-transport of IPV victims.<sup>20</sup> This low transport rate may indicate that paramedic involvement in IPV cases leads to both lower discovery rates and ultimately under-reporting of IPV statistics.

Of our participants 26% had received no training or education around IPV, and only forty four percent reported receiving continuing education at work. These rates are lower than a study which found two thirds of US ambulance services provide IPV education to their staff.<sup>23</sup> Only twenty two percent of our participants reported feeling very prepared for IPV calls, similar figures were reported in a recent Canadian study.<sup>13</sup> As discussed above paramedics are a key contact point for victims of IPV, and their management of such cases can be highly influential in how the victim interacts with other agencies. If more than three quarters of our participants indicated that they did not feel adequately prepared for IPV it is difficult to conclude that all victims receive the best possible care and attention. Poor organisation support has been cited in the past as a barrier to the effective screening and discovery of IPV,<sup>24</sup> and the AMA have stated that additional training and education is key to effecting change in the way IPV is suspected, detected, and managed.<sup>19</sup> As such it appears that specific IPV education and training for paramedics is both warranted and required.

Only 44% of our participants correctly identified that there is no mandatory reporting of IPV in their region. Alternatively a high number (72%) correctly identified that between 11 and 30% of women will experience IPV in their life, which is in line with estimates of around 20%.<sup>4</sup> Only twenty two percent of participants identified women as an at risk group, a surprising finding, though this result may be due to the phrasing of the question with participants believing 'women' to be self-evident. The responses from our participants were heavily biased towards low socio economic and culturally diverse groups (i.e. not of white-European extraction), yet we know that IPV occurs across cultures and social groups.<sup>1</sup> However it is possible that our results are indicative of the population groups which our participants most frequently encounter when attending IPV cases, or perhaps there is a difference in trauma profiles and ambulance utilisation of IPV victims between different groups who contact ambulance services. These results indicate that there is not a high level of understanding of the legal responsibilities for paramedics surrounding IPV, which is consistent with previous US based research.<sup>15</sup> Furthermore this result is not surprising considering twenty four percent of our participants stated in free text that they would benefit from additional education and training in responding to IPV.

**Table 2**

Participant preparation for and management of IPV cases.

Variable	Descriptor	N	Percentage (%)
How many of the IPV calls you responded to were correctly dispatched as IPV?	All	7	14.0
	Most	13	26.0
	Some	14	28.0
	Few	6	12.0
	None	8	16.0
	N/A	2	4.0
How prepared do you feel to deal with IPV cases?	Very prepared	11	22.0
	Somewhat prepared	30	60.0
	Not at all prepared	9	18.0
How often do you believe IPV victims are transported to hospital?	All of the time	6	12.0
	Some of the time	15	30.0
	None of the time	25	50.0
	Not sure	4	8.0
What do you believe is the most frequent reason IPV victims are not transported to hospital?	There were no injuries	3	6.0
	Patient refuses	32	64.0
	Other	14	28.0
	N/A	1	2.0
Who did you report your last IPV case too?	Police	30	60.0
	Supervisor	5	10.0
	Hospital staff	6	12.0
	No one	1	2.0
	Other	3	6.0
	N/A	5	10.0

Some participants indicated in free text that they believed the introduction of guidelines for managing IPV would aid in their response to such cases. This seems reasonable as two thirds of ambulance services in the US currently utilise IPV protocols and guidelines.<sup>23</sup> Furthermore research has shown that the majority of women believe screening for IPV in health care settings is acceptable, they would be willing to disclose IPV to health professionals if asked, and they are more likely to disclose IPV if asked directly.<sup>25</sup> Perhaps most compelling is evidence that interventions can prevent further abuse,<sup>1</sup> and therefore all possible steps must be taken to ensure screening and reporting is undertaken in the out-of-hospital setting.

This study contained two main limitations. Firstly it was limited by its small sample size and so while results may be indicative they are not necessarily generalisable to other Australian or international paramedic populations. Secondly our study was limited by the scope of the questions.

## 5. Conclusions

Our participants demonstrated that they frequently attended IPV cases, felt unprepared to manage such cases, and desired additional training. Future studies in more varied paramedic populations and with a broader scope of questioning would be useful in determining the level of paramedic knowledge of IPV. It is entirely possible that research may indicate that there is a need for ambulance services to introduce standardised guidelines and protocols to ensure best practice is routinely followed and that patients are offered the same treatment that they would receive in hospital.

### Ethical approval

Ambulance service approval was granted for this study.

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None declared.

### Conflict of interest

None declared.

## References

1. Victorian Health Promotion Foundation. *The health costs of violence. Measuring the burden of disease caused by intimate partner violence: a summary of findings*. Melbourne, Victoria: Victorian Health Promotion Foundation; 2004.
2. Heise L, Garcia-Moreno C. *Violence by intimate partners*. Geneva: World Health Organisation; 2002.
3. Australian Bureau of Statistics. *Women's safety Australia catalogue no. 4128.0*. Canberra: ABS; 1996.
4. Mouzos J, Makkai T. *Women's experiences of male violence: findings from the Australian component of the International Violence Against Women Survey (IVAWS)*. Canberra: Australian Institute of Criminology; 2004.
5. Australian Bureau of Statistics. *Personal safety survey*. 2012. Canberra 2013.
6. Roberts GL, O'Toole BI, Raphael B, Lawrence JM, Ashby R. Prevalence study of domestic violence victims in an emergency department. *Ann Emerg Med* 1996;**27**(6):747–53.
7. Hegarty K, Roberts G. How common is domestic violence against women? The definition of partner abuse in prevalence studies. *Aust N Z J Public Health* 1998;**22**(1):49–54.
8. Krug EG, Mercy JA, Dahlberg LL, Zwi AB. *World report on violence and health*. Geneva: World Health Organization; 2002.
9. Black MC, Basile KC, Breiding MJ, Smith SG, Walters ML, Merrick MT, et al. *National intimate partner and sexual violence survey*. Atlanta, GA: CDC Centers for Disease Control and Prevention; 2011.
10. Australian Government's Office of the Status of Women. *The cost of domestic violence to the Australian economy*. Canberra: FaHCSIA; 2004.
11. National Center for Injury Prevention and Control. *Costs of intimate partner violence against women in the United States*. Atlanta, GA: Centers for Disease Control and Prevention; 2003.
12. Mason R, Schwartz B, Burgess R, Irwin E. Emergency medical services: a resource for victims of domestic violence? *EMJ* 2010;**27**(7):561–4.
13. Datner EM, Shofer FS, Parmele K, Stahmer SA, Mechem CC. Utilization of the 911 system as an identifier of domestic violence. *Am J Emerg Med* 1999;**17**:560–5.
14. Allert CS, Chalkley C, Whitney JR, Librett A. Domestic violence: efficacy of health provider training in Utah. *Prehospital Disaster Med* 1997;**12**:52–6.
15. Hall M, Becker V. The front lines of domestic violence. Training model for rural EMS personnel. *J Psychosoc Nurs Ment Health Serv* 2002;**40**:40–8.
16. Weiss SJ, Ernst AA, Blanton D, Sewell D, Nick TG. EMT domestic violence knowledge and the results of an educational intervention. *Am J Emerg Med* 2000;**18**(2):168–71.
17. Weiss SJ, Ernst AA, Blanton D, Sewell D, Nick TG. Domestic violence among emergency medical technicians. *Acad Emerg Med* 1999;**6**(8):857–9.
18. Australian Medical Association. *AMA position statement: domestic violence*. 1998.
19. Husni ME, Linden JA, Tibbles C. Domestic violence and out-of-hospital providers a potential resource to protect battered women. *Acad Emerg Med* 2000;**7**(3):243–8.
20. World Health Organization. *Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines*. Geneva: WHO; 2013.
21. Tjaden P, Thoennes N. Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the national violence against women survey. *Violence Against Women* 2000;**6**(2):142–61.
22. Lanzilotti S, Jones P, Dai J, Bentzien V. EMS & the domestic violence patient: a report card of existing policy, protocol & training. *JEMS* 1999;**24**(6):58–66.
23. Boergerhoff L, Gerberich S, Anderson A, Kochevar L, Waller L. Out-of-hospital violence injury surveillance: quality of data collection. *Ann Emerg Med* 1999;**34**(6):745–50.
24. Taft A, O'Doherty L, Hegarty K, Ramsay J, Davidson L, Feder G. Screening women for intimate partner violence in healthcare settings. *Cochrane Libr* 2013;**4**.